

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Currently Amended): A method for resolving an addressing conflict between a first processor in a first network and a second processor in a second network, the method comprising the steps of:

detecting the addressing conflict between a first address of the first processor and a second address of the second processor;

receiving from the first processor one or more packets forming a tunnel;

removing from the one or more packets information about the tunnel, the removed tunnel information having a virtual address;

determining that the one or more packets are associated with the detected addressing conflict based on the removed ~~tunnel information~~ virtual address;

determining a translated address based on the removed ~~tunnel information~~ virtual address; and

forwarding the one or more packets based on the translated address.

2. (Original): The method of claim 1, wherein said step of detecting further comprises the step of:

detecting that the first address is same as the second address.

3. (Original): The method of claim 1, wherein said step of detecting further comprises the step of:

detecting that the first address is same as the second address based on information about the first processor and the tunnel.

4. (Currently Amended). The method of claim 1, wherein said step of removing further comprises the step of:

removing information indicating ~~[[an]]~~ the virtual address, the virtual address uniquely identifying ~~[[of]]~~ the tunnel.

5. (Currently Amended): The method of claim 1, wherein said step of removing further comprises the step of:

removing information indicating ~~[[an]]~~ a virtual Internet Protocol (IP) address of the tunnel.

6. (Currently Amended): The method of claim 1, wherein said step of determining that the one or more packets are associated with the detected addressing conflict further comprises the step of:

determining, based on the removed virtual address ~~tunnel information~~, that the first address in the one or more packets causes the addressing conflict.

7. (Original): The method of claim 1, wherein said step of determining the translated address further comprises the step of:

determining the translated address based on the first address.

8. (Original): The method of claim 1, wherein said step of determining the translated address further comprises the step of:

mapping the first address into the translated address, such that the one or more packets are forwarded on a network other than the first and second networks without the addressing conflict.

9. (Original): The method of claim 1, wherein said step of determining the translated address further comprises the step of:

mapping the first address into the translated address, such that the one or more packets are forwarded on the second network without the addressing conflict.

10. (Original): The method of claim 1, wherein said step of determining the translated address further comprises the step of:

mapping the first address into the translated address, such that the one or more packets are forwarded on the first network without the addressing conflict.

11. (Original): The method of claim 10, further comprising the step of:

mapping, at a gateway, the first address into the translated address.

12. (Original): The method of claim 1, wherein said step of detecting further comprises the step of:

detecting the addressing conflict at a gateway interfacing a network other than the first and second networks.

13. (Original): The method of claim 1, wherein said step of detecting further comprises the step of:

detecting the addressing conflict at a gateway interfacing the second network.

14. (Original): The method of claim 1, wherein said step of detecting further comprises the step of:

detecting the addressing conflict at a gateway interfacing the first network.

15. (Currently Amended): An apparatus comprising:
a memory including code that detects an addressing conflict between a first address of a first processor in a first network and a second address of a second processor in a second network, receives from the first processor one or more packets forming a tunnel, removes from the one or more packets ~~information~~ a virtual address ~~[[about]]~~ of the tunnel, determines that the one or more packets are associated with the detected addressing conflict based on the removed virtual address ~~tunnel information~~, determines a translated address based on the removed virtual address ~~tunnel information~~, and forwards the one or more packets based on the translated address;
and

at least one processor that executes the code.

16. (Original): The apparatus of claim 15, wherein said code detects that the first address is same as the second address.

17. (Original): The apparatus of claim 15, wherein said code detects that the first address is same as the second address based on information about the first processor and the tunnel.

18. (Currently Amended): The apparatus of claim 15, wherein said code removes the virtual address, the virtual address uniquely identifying information- ~~indicating an address of the tunnel.~~

19. (Currently Amended): The apparatus of claim 15, wherein said code removes information indicating ~~[[an]]~~ a virtual Internet Protocol (IP) address of the tunnel.

20. (Currently Amended): The apparatus of claim 15, wherein said code determines, based on the removed virtual address ~~tunnel information~~, that the first address in the one or more packets causes the addressing conflict.

21. (Original): The apparatus of claim 15, wherein said code determines the translated address based on the first address.

22. (Original): The apparatus of claim 15, wherein said code maps the first address into the translated address, such that the one or more packets are forwarded on a network other than the first and second networks without the addressing conflict.

23. (Original): The apparatus of claim 15, wherein said code maps the first address into the translated address, such that the one or more packets are forwarded to the second network without the addressing conflict.

24. (Original): The apparatus of claim 15, wherein said code maps the first address into the translated address, such that the one or more packets are forwarded to the first network without the addressing conflict.

25. (Original): The apparatus of claim 15, further comprising:
code that maps, at a gateway, the first address into the translated address.

26. (Currently Amended): A computer-implemented system, comprising:
means for detecting an addressing conflict between a first address of a first processor on a first network and a second address of a second processor on a second network;

means for receiving from the first processor one or more packets forming a tunnel;

means for removing from the one or more packets information about the tunnel, the removed tunnel information having a virtual address;

means for determining that the one or more packets are associated with the detected addressing conflict based on the removed virtual address tunnel information;

means for determining a translated address based on the removed virtual address tunnel information; and

means for forwarding the one or more packets based on the translated address.

27. (Original): The system of claim 26, wherein said means for detecting detects that the first address is same as the second address.

28. (Original): The system of claim 26, wherein said means for detecting detects that the first address is same as the second address based on information about the first processor and the tunnel.

29. (Currently Amended): The system of claim 26, wherein said means for removing removes from the one or more packets the virtual address, the virtual address uniquely identifying information indicating an address of the tunnel.

30. (Currently Amended): The system of claim 26, wherein said means for removing removes from the one or more packets information indicating [[an]] a virtual Internet Protocol (IP) address of the tunnel.

31. (Currently Amended): A network, comprising:
a first processor having a first address on a first network;
a second processor having a second address on a second network; and
a processor other than the first and second processors that detects a conflict between the first address and the second address and resolves the conflict based on a virtual address of information about a tunnel established between the other processor and the first network, such that communication between the first processor and the second network is enabled.

32. (Currently Amended): The network of claim 31, wherein the other processor determines a translated address based on the virtual address of information about the tunnel and forwards one or more packets to the second network based on the translated address.

33. (Original): The network of claim 31, wherein the other processor functions as a gateway.

34. (Currently Amended): The network of claim 31, wherein the other processor resolves the conflict based on another virtual address of information about another tunnel established between the other processor and the second network.

35. (Original): The network of claim 31, wherein the other processor resolves the conflict such that communication between the second processor and first network is enabled.

36. (Previously Presented): The method of claim 1, further comprising the step of:

forming the tunnel, such that a first protocol encapsulates a second protocol.

37. (Previously Presented): The method of claim 36, further comprising the step of:

using the first protocol as an Internet Protocol (IP).

38. (Previously Presented): The method of claim 36, further comprising the step of:

using the second protocol as an Internet Protocol (IP).

39. (Previously Presented): The method of claim 38, further comprising the step of:

defining the second protocol to further include an encryption protocol.

40. (Currently Amended): The method of claim 1, further comprising the step of:

removing from the one or more packets [[a]] the virtual address of the tunnel, the virtual address uniquely identifying the tunnel and being routable on a virtual network.

41. (Previously Presented): The method of claim 1, wherein said determining the translated address further comprises the step of:

determining the translated address, such that the addressing conflict is resolved by the first processor on the first network without regard to a possible addressing conflict on a network other than the first network.

42. (Previously Presented): The method of claim 1, wherein said determining the translated address further comprises the step of:

determining the translated address, such that the addressing conflict is resolved between the first and second networks without regard to a possible addressing conflict on a network other than the first and second networks.

43. (Previously Presented): The method of claim 1, wherein said determining the translated address further comprises the step of:

determining the translated address, such that the addressing conflict is resolved by the first processor without consent of another processor.

44. (Previously Presented): The method of claim 1, wherein said determining the translated address further comprises the step of:

determining the translated address, such that the addressing conflict is resolved by the first and second processors without regard to another processor.

45. (Previously Presented): The apparatus of claim 15, further comprising:
code that forms the tunnel, such that a first protocol encapsulates a second protocol.

46. (Previously Presented): The apparatus of claim 45, further comprising:
code that uses the first protocol as an Internet Protocol (IP).

47. (Previously Presented): The apparatus of claim 45, further comprising:
code that uses the second protocol as an Internet Protocol (IP).

48. (Previously Presented): The apparatus of claim 47, further comprising:
code that uses the second protocol to further include an encryption protocol.

49. (Currently Amended): The apparatus of claim 15, further comprising:
code that removes from the one or more packets ~~[[a]]~~ the virtual address of the tunnel, the virtual address being routable on a virtual network.

50. (Previously Presented): The apparatus of claim 15, wherein said code that determines the translated address further comprises:

code that determines the translated address, such that the addressing conflict is resolved by the first processor on the first network without regard to a possible addressing conflict on a network other than the first network.

51. (Previously Presented): The apparatus of claim 15, wherein said code that determines the translated address further comprises:

code that determines the translated address, such that the addressing conflict is resolved between the first and second networks without regard to possible addressing conflicts on a network other than the first and second networks.

52. (Previously Presented): The apparatus of claim 15, wherein said code that determines the translated address further comprises:

code that determines the translated address, such that the addressing conflict is resolved by the first processor without consent of other processors.

53. (Previously Presented): The apparatus of claim 15, wherein said code that determines the translated address further comprises:

code that determines the translated address, such that the addressing conflict is resolved by the first and second processors without regard to another processor.

54. (Previously Presented): The network of claim 31, wherein the other processor determines the translated address without regard to the first and second

networks, such that the addressing conflict is resolved locally on a network other than the first and second networks.

55. (Previously Presented): The network of claim 31, wherein the other processor determines the translated address, such that the addressing conflict is resolved on a network other than the first and second networks.